

**USGS-NPS Vegetation Mapping Program**  
**Effigy Mounds National Monument**

---

***Cephalanthus occidentalis* / *Carex* spp. Northern Shrubland**

COMMON NAME	Buttonbush / Sedge species Northern Shrubland
SYNONYM	Northern Buttonbush Swamp
PHYSIOGNOMIC CLASS	Shrubland (III)
PHYSIOGNOMIC SUBCLASS	Deciduous shrubland (III.B)
PHYSIOGNOMIC GROUP	Cold-deciduous shrubland (III.B.2)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural Cold-deciduous shrubland (III.B.2.N)
FORMATION	Semipermanently flooded cold-deciduous shrubland (III.B.2.N.f)
ALLIANCE	CEPHALANTHUS OCCIDENTALIS SEMIPERMANENTLY FLOODED SHRUBLAND ALLIANCE

CLASSIFICATION CONFIDENCE LEVEL 2

USFWS WETLAND SYSTEM Semipermanently flooded cold-deciduous shrubland

**CONCEPT SUMMARY**

***Globally***

This buttonbush swamp shrubland community occurs throughout glaciated regions of the midwestern and northeastern United States and adjacent Canada. Stands occupy shallow water depressions, oxbow ponds, and backwater sloughs of stream and river floodplains. Inundation is usually continuous throughout the year, but these sites can become dry in mid or late summer or during periods of prolonged drought. Soils are deep (>100 cm) consisting of peat or muck over alluvial parent material. The shrub layer can vary from very open to closed (20–80%). *Cephalanthus occidentalis* typically comprises nearly 90% of the shrub layer in waters 1–2 m deep. Other shrubs commonly encountered include *Cornus sericea*, *Decodon verticillatus*, *Ilex verticillata*, *Rosa palustris*, and *Salix nigra*. The herbaceous layer can be very sparse, due to flooding. Rooted or floating aquatics may dominate, including *Lemna minor* and *Nuphar lutea* ssp. *advena*. Herbs present on the shallow margins include *Bidens frondosa*, *Boehmeria cylindrica*, *Carex lacustris*, *Glyceria striata*, and others. A scattered tree canopy may occur, including the following species: *Acer rubrum*, *Acer saccharinum*, *Fraxinus nigra*, *Fraxinus pennsylvanica*, and *Ulmus americana*. Diagnostic features include the dominance by *Cephalanthus occidentalis* in glaciated regions and, typically, the presence of standing water.

**RANGE**

***Effigy Mounds National Monument***

This community occurs in backwater sloughs of the Mississippi and Yellow Rivers, and along the edges of ponds.

***Globally***

This buttonbush swamp shrubland community occurs throughout glaciated regions of the midwestern and northeastern United States and adjacent Canada, ranging from northern Missouri north to southern Michigan, east to Ohio and southern Ontario, and south to Indiana and Illinois.

**ENVIRONMENTAL DESCRIPTION**

***Effigy Mounds National Monument***

This community occupies wet edges of ponds and in shallow waters of backwater sloughs. Soils are muck, and are usually inundated continuously through the year, except in periods of prolonged drought. Water depth varies throughout the season, ranging from > 1m to .5m.

***Globally***

This wet shrubland community occupies shallow water depressions, oxbow ponds, and backwater sloughs of stream and river floodplains throughout swampy forested areas in glaciated terrain. Inundation is usually continuous throughout the year, but these sites can become dry in mid or late summer or during periods of prolonged drought (Faber-Langendoen and Maycock 1989). Soils are deep (>100 cm) consisting of peat or muck over alluvial parent material.

**MOST ABUNDANT SPECIES**

***Effigy Mounds National Monument***

<u>Stratum</u>	<u>Species</u>
TALL SHRUB	<i>Cephalanthus occidentalis</i>

***Globally***

<u>Stratum</u>	<u>Species</u>
----------------	----------------

**CHARACTERISTIC SPECIES**

***Effigy Mounds National Monument***

*Cephalanthus occidentalis*

***Globally***

## USGS-NPS Vegetation Mapping Program

### Effigy Mounds National Monument

---

#### VEGETATION DESCRIPTION

##### **Effigy Mounds National Monument**

*Cephalanthus* comprises 90–100 % of the shrub layer. Shrub canopy cover can be either open or closed. *Acer saccharinum* may be scattered in the tree and shrub layers. Herbaceous species present include *Sagittaria latifolia*, *Laportea canadensis*, *Phalaris arundinacea*, and *Scirpus fluviatilis*. However, the herbaceous layer can be absent during years with prolonged flooding..

##### **Globally**

The shrub layer can vary from very open to closed (20–80%). *Cephalanthus occidentalis* typically comprises nearly 90% of the shrub layer in waters 1–2 m deep. Other shrubs commonly encountered include *Cornus sericea*, *Decodon verticillatus*, *Ilex verticillata*, *Rosa palustris*, and *Salix nigra*. The herbaceous layer can be very sparse, due to flooding. Rooted or floating aquatics may dominate, including *Lemna minor* and *Nuphar lutea* ssp. *advena* (= *Nuphar advena*). Herbs present on the shallow margins include *Bidens frondosa*, *Boehmeria cylindrica*, *Carex lacustris*, *Glyceria striata*, and others. In Missouri *Hibiscus laevis* (= *Hibiscus militaris*) is common. A scattered tree canopy may occur, including the following species: *Acer rubrum*, *Acer saccharinum*, *Fraxinus nigra*, *Fraxinus pennsylvanica*, and *Ulmus americana* (Anderson 1996, Faber-Langendoen and Maycock 1989).

#### OTHER NOTEWORTHY SPECIES

CONSERVATION RANK G4.

DATABASE CODE CEGL002190

#### COMMENTS

##### **Effigy Mounds National Monument**

This is a rare community within the Monument, occurring in small stands in abandoned channels of bottomlands and floodplain islands, or as a fringe community at the edges of ponds. It is of common occurrence in the nearby Mississippi River floodplain.

##### **Globally**

#### REFERENCES

- Anderson, D. M. 1996. The vegetation of Ohio: Two centuries of change. Draft. Ohio Biological Survey.
- Faber-Langendoen, D., and P. F. Maycock. 1989. Community patterns and environmental gradients of buttonbush, *Cephalanthus occidentalis*, ponds in lowland forests of southern Ontario. *The Canadian Field-Naturalist* 103(4):479–485.